PREPARED FOR ANYTHING

Instruction block gives students practical experience

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SHEPPARD AIR FORCE BASE, Texas — As the Air Force Vision of becoming more expeditionary takes shape, the way we train needs to be adjusted to meet these expectations.

The Telecom Flight here is tackling these challenges by installing a cable circuit around the 15 acre training area in preparation for the new expeditionary block of instruction for both the cable/antenna and telephone systems courses. This new block of instruction will challenge the students to use the skills learned throughout the courses to operate and maintain a simulated deployed site with minimal instructor assistance. The students are expected to set up all the tactical equipment into the tents and have it running and operating properly by the end of the course. **The new circuit allows the instructors to add malfunctions into the circuit forcing the students to troubleshoot and figure out where the problem lies and how to correct and repair the fault.**

What makes this so challenging is the new circuit consists of many different types of lines and transmissions. The circuit is made up of fiber optic cables, radio waves, aerial lines and buried copper cables. To make it even more interesting, the circuit runs through the manhole system. A complete circuit will connect the various telephone switches inside the building to the various telephone sets inside the tents. This circuit starts with the telephone switches inside the building and runs to the outside of the building through fiber optic cables. From there it turns into a buried 25 pair copper cable that runs through the manhole system, out to the poles where the cable runs 20 feet in the air over the poles. Once it leaves the poles, it returns to buried cable and runs inside to be converted into radio waves. This is accomplished by sending the signal to a radio transmitter, which sends the signal from a radio located on an antenna tower to another radio on a different tower via a microwave shot. The radio signal is sent back inside where it is converted to light and sent through fiber optic cable to the tents. The circuit also is designed with flexibility so certain paths or sections can be skipped or routed around if the section is bad.

This new block of instruction will help the students know what they can expect when deployed. **Roughly 50 percent of the students who graduate the course will be deployed within their first couple of years.** This block of instruction also teaches the AEF concept and what deployments are all about.

Armed with this knowledge and their new skills, these Airmen will be well prepared for their jobs at their home base and when they are deployed abroad.

Buried copper cable is just one element of the system.

Fiber optic cable runs from outside into the tents .

Hands on training is a crucial part of the curriculum.